

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (Currently Amended) A computer implemented, price optimization system for optimizing a preferred set of prices for a subset of a plurality of products, comprising:
 - a rule editor configured to set a plurality of relaxable rules, wherein the plurality of relaxable rules is set utilizing rule parameters, wherein the rule editor utilizes default values of the rule parameters, and further wherein the rule editor enables configuring of the rule parameters by a user;
 - a rule prioritizer configured to ~~iteratively~~ prioritize a the plurality of relaxable rules, and for ~~iteratively~~ identifying at least one lower priority infeasible rule from the plurality of relaxable rules;
 - a rule relaxation module configured to incrementally relax any infeasible rule of the plurality of relaxable rules which has a lower priority than the at least one lower priority infeasible rule, enabling the at least one lower priority infeasible rule to become feasible;
 - a database configured to store initial prices for a plurality of products;
 - a product designator configured to designate a subset of products of the plurality of products, wherein the number of products in the subset of products is less than the number of products in the plurality of products; and
 - an optimization engine configured to optimize prices for products in the subset of products, while maintaining the initial prices of all other products of the plurality of products and wherein the optimizing of prices complies with the relaxed any infeasible rule of the plurality of rules.
2. (Currently Amended) The price optimization system, as recited in claim 1, wherein the product designator for designating a subset enables a number N to be designated, and wherein the product designator selects no more than N products of the plurality of products to form the subset of products, and wherein the selected no more than N products has the largest impact on the optimization of prices of any subset of no more than N products of the plurality of products, and further wherein the largest impact on the optimization is determined by ranking all products by a

marginal contribution to the optimization and selecting the no more than N products by a mixed integer problem.

3. (Currently Amended) The price optimization system, as recited in claim 2, wherein the optimization engine provides an optimization of at least one of total profit, sales volume, and revenue for the subset of products.

4. (Previously Presented) The price optimization system, as recited in claim 3, wherein the optimization engine provides initial prices by optimizing prices for all of the plurality of products.

5. (Cancelled)

6. (Cancelled)

Claims 7 - 8. (Cancelled)

9. (Previously Presented) The price optimization system, as recited in claim 1, wherein the optimization engine provides initial prices by optimizing prices for all of the plurality of products.

10. (Cancelled)

11. (Cancelled)

Claims 12 - 13. (Cancelled)

14. (Currently Amended) In a computer system, a method for computing a preferred set of prices for a subset of products of a plurality of products, comprising:

setting, using the computer system, a plurality of relaxable rules, wherein the setting of rules utilizes rule parameters, and wherein the rule parameters include default rule parameters and configured rule parameters;

prioritizing, using the computer system, a the plurality of relaxable rules, ~~wherein the prioritizing of the plurality of rules is iterative;~~

identifying, using the computer system, at least one lower priority infeasible rule from the plurality of relaxable rules, ~~wherein the identifying of the plurality of rules is iterative;~~

incrementally relaxing, using the computer system, any infeasible rule of the plurality of rules which has a lower priority than the at least one lower priority infeasible rule to allow the at least one lower priority infeasible rule of the plurality of rules to become feasible;

storing, using the computer system, initial prices for a plurality of products;

designating, using the computer system, a subset of products of the plurality of products, wherein the number of products in the subset of products is less than the number of products in the plurality of products; and

optimizing, using the computer system, prices for products in the subset of products, while maintaining the initial prices of products of the plurality of products that are not in the subset of products, and wherein the optimizing of prices complies with the relaxed any infeasible rule of the plurality of rules.

15. (Currently Amended) The method, as recited in claim 14, wherein the designating a subset comprises:

allowing a number N to be designated; and

selecting no more than N products of the plurality of products to form the subset of products, wherein the selecting no more than N products has the largest impact on the optimizing of prices of any subset of no more than N products of the plurality of products, and further wherein the largest impact on the optimization is determined by ranking all products by a marginal contribution to the optimization and selecting the no more than N products by a mixed integer problem.

16. (Currently Amended) The method, as recited in claim 15, further comprising providing, using the computer system, an optimization of at least one of total profit, sales volume, and revenue for the subset of products.

17. (Previously Presented) The method, as recited in claim 14, further comprising providing, using the computer system, initial prices by optimizing prices for all of the plurality of products.

18. (Previously Presented) The method, as recited in claim 17, further comprising providing, using the computer system, new data subsequent to providing initial prices by optimizing prices.

19. (Previously Presented) The method, as recited in claim 18, wherein the new data comprises new price data and new price bound data, and wherein new price bound data includes changes in costs, base price, competitive prices, point-of-sale data, product information and store information.

20-24 (Canceled)

25. (Previously Presented) The price optimization system, as recited in claim 1, wherein the optimization engine provides an optimization of total revenue for the subset of products.

26. (Previously Presented) The price optimization system, as recited in claim 1, wherein the optimization engine provides an optimization of sales volume for at least one product of the subset of products.

27. (Previously Presented) The method, as recited in claim 15, further comprising providing, using the computer system, an optimization of total revenue for the subset of products.

28. (Previously Presented) The method, as recited in claim 15, further comprising providing, using the computer system, an optimization of sales volume for at least one product of the subset of products.

29. (New) The price optimization system, as recited in claim 1, wherein the rule editor enables configuration of at least one of group price change, brand pricing rules, size pricing rules, unit pricing rules, line pricing rules, cluster pricing rules, gross margin rule, store volume rule and competition rules.

30. (New) The method, as recited in claim 14, wherein the rule parameters includes at least one of group price change, brand pricing rules, size pricing rules, unit pricing rules, line pricing rules, cluster pricing rules, gross margin rule, store volume rule and competition rules.